



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
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MAY 16 2003

Mr. Ernest Hahn
Assistant Commissioner
New Jersey Department of Environmental Protection
Land Use Management
P.O. Box 402
Trenton, New Jersey 08625-0402

Dear Mr. Hahn:

On December 27, 2002, the U.S. Environmental Protection Agency (EPA) received New Jersey's 2002 Integrated Water Quality Monitoring and Assessment Report. EPA's only action is on Sublist 5 waters and accompanying documentation representing New Jersey's 2002 Clean Water Act (CWA) Section 303(d) list. EPA has conducted a complete review of the list and supporting documentation and information. Based on this review, EPA has determined that New Jersey's 2002 list of water quality-limited segments still requiring Total Maximum Daily Loads (TMDLs) meets the requirements of Section 303(d) of the CWA and EPA's implementing regulations. Therefore, by this letter, EPA hereby approves New Jersey's Section 303(d) list. The statutory and regulatory requirements, and EPA's review of New Jersey's compliance with each requirement, are described in the enclosure.

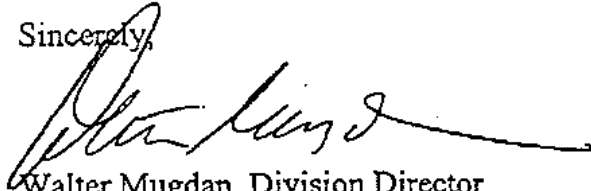
Section 303(d) of the CWA and EPA's implementing regulations at 40 CFR Part 130.7 require each State to identify those waters within its boundaries for which technology-based and other controls are not stringent enough to implement any water quality standards applicable to such waters. Under EPA's regulations, 40 CFR Part 130.7(b)(4), each State is required to identify the pollutants causing the impairment of the listed waters. Section 303(d) further requires States to establish a priority ranking for such waters, taking into account the severity of the pollution and the designated uses of the listed waters. Finally, States are required to identify the waters targeted for TMDL development over the next two years.

The New Jersey 2002 CWA Section 303(d) list identifies 1,386 waterbody/pollutant combinations still requiring TMDLs. One hundred and two (102) of these have been identified as high priority waters targeted for development of TMDLs by October 1, 2004.

The New Jersey Department of Environmental Protection (NJDEP) announced the availability of the 2002 Section 303(d) list in the New Jersey Register on May 20, 2002, providing a public comment period through July 8, 2002. Based on additional information provided to the NJDEP, an amended Section 303(d) list was public noticed on August 5, 2002 which provided a public comment period through September 4, 2002. NJDEP received over 200 written comments from more than 30 interested parties and has addressed all comments in a responsiveness summary document. NJDEP included this responsiveness summary as part of its list submission to EPA.

EPA hereby approves New Jersey's 2002 CWA Section 303(d) list pursuant to 40 CFR 130.7(d). Should you have any questions concerning this approval, please do not hesitate to contact me at (212) 637-3724, or Mario Del Vicario, Chief, Community and Ecosystem Protection Branch, at (212) 637-3779.

Sincerely,

A handwritten signature in black ink, appearing to read "Walter Mugdan", with a long horizontal flourish extending to the right.

Walter Mugdan, Division Director
Division of Environmental Planning and Protection

Enclosure

**Supporting Documentation for Review and Approval of
New Jersey's 2002 Clean Water Act Section 303(d) List**

Pursuant to Section 303(d) of the Clean Water Act (the "Act"), the State of New Jersey has submitted to EPA a list of impaired waters and accompanying documentation for EPA's approval or disapproval. For the reasons set forth below, EPA approves New Jersey's Section 303(d) list.

Identification of Water Quality-Limited Segments for Inclusion on Section 303(d) List

Section 303(d)(1) of the Act directs New Jersey to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. Pursuant to 40 CFR Section 130.7, the Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources.

EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by state or local authority, and (3) other pollution control requirements required by state, local, or federal authority. 40 CFR 130.7(b)(1).

New Jersey's decision not to include a segment of the Atlantic Ocean for fecal coliform impairment on its 2002 Section 303(d) list is consistent with EPA regulations at 40 CFR 130.7(b)(1). The impairment is due to a broken outfall pipe which has been repaired and the site is expected to meet standards by 2004.

Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA. 40 CFR 130.7(b)(5). States are required to consider any other data and information that is existing and readily available. EPA's guidance describes categories of water quality-related data and information that may be existing and readily available. See Guidance for Water Quality-Based Decisions: The

TMDL Process - EPA 440/4-91-001, EPA Office of Water, 1991, Appendix C ("EPA's 1991 Guidance"). While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR 130.7(b)(6) require states to include, as part of their submissions to EPA, documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

EPA has reviewed New Jersey's Section 303(d) list and has concluded that New Jersey developed its list in compliance with Section 303(d) of the Act and 40 CFR 130.7. EPA's review is based on its analysis of whether New Jersey reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

EPA's guidance for the 2002 reports consists of: (1) Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates - EPA841-B-97-002A and EPA841-B-97-002B, 1997; and (2) the 2002 Integrated Water Quality Monitoring and Assessment Report Guidance Memorandum from the Office of Wetlands, Oceans and Watersheds dated November 19, 2001. New Jersey developed the "New Jersey 2002 Integrated Water Quality Monitoring and Assessment Report" ("Integrated Report") to integrate the monitoring and assessment activities under Sections 305(b) and 303(d) of the Act. The Integrated Report presents the extent to which waters of New Jersey are attaining water quality standards and designated uses and identifies waters that are impaired and need TMDLs, as required under Section 303(d). The Integrated Report describes the process for evaluating monitoring data and information to determine the levels of water quality and use support.

The Integrated Report consists of the following items:

- an integrated list of specific waterbody/pollutant combinations, each categorized by placement on a Sublist;
- a report summarizing the contents of the integrated list as it applies to designated use attainment statewide in New Jersey;
- a priority ranking for all waterbody/pollutant combinations on Sublist 5;
- a document detailing New Jersey's assessment methods for determining placement on the integrated list;

- a comparison document indicating the placement on the 2002 integrated list for waters previously listed on New Jersey's 1998 303(d) List; and
- a document providing New Jersey's response to public comments on the Integrated Report.

The Integrated Report modifies EPA's recommended approach for developing such integrated listings of waters statewide for 2002. Instead of evaluating a waterbody based on several parameters considered at once and assigning the waterbody to a single category, New Jersey identified a waterbody by the parameter for which it is being assessed and then assigned a specific waterbody/parameter combination to the appropriate sublist. For example, Mirror Lake was listed on Sublist 5 for fecal coliform because New Jersey had data that indicated fecal coliform exceeds water quality standards. However, Mirror Lake was included on Sublist 3 for nutrients, because insufficient data were available to determine if it is impaired for nutrients. Therefore, New Jersey's integrated list categorizes waters according to the evaluation of available data based on a parameter by parameter basis.

Four of the following 5 categories are used by New Jersey in its 2002 Integrated Report for identifying a specific waterbody/parameter combination:

- Sublist 5: The waterway is impaired or threatened by a pollutant or suspected pollutant and requires a TMDL. Sublist 5 constitutes the New Jersey 2002 Section 303(d) list on which EPA is taking action today;
- Sublist 4: The waterway is impaired or threatened for a specific parameter but does not require a TMDL;
- Sublist 3: Insufficient or no data are available for determining surface water standard or designated use attainment for a parameter;
- Sublist 2: New Jersey did not list any waterbodies in this category. EPA guidance suggests the use of a Category 2 for identifying one waterbody based on consideration of several parameters at once; this categorization is not used in New Jersey's 2002 evaluation process; and
- Sublist 1: The waterway is attaining the water quality standard and no use is threatened based on a specific parameter.

The existing and readily available data used by New Jersey to develop the 2002 Section 303(d) list comes from a broad range of state, local, interstate and federal programs. The major programs include the New Jersey-USGS Cooperative Ambient Stream Monitoring Network including the 1997 Redesignated Ambient Stream Monitoring Network, New Jersey 303(d) Evaluation Monitoring, New Jersey's Marine and Estuarine Monitoring Program, New Jersey's

Ambient Biological Monitoring Network, NJ Division of Fish and Wildlife's Assessment of Warmwater Fisheries Populations, the Clean Lakes Program, the USEPA Helicopter Monitoring Program, Fish Consumption Advisories of the Interagency Toxics in Biota Committee, the National Shellfish Sanitation Program, local lake bathing beach monitoring data, the Nonpoint Assessment Program, and a variety of other programs. New Jersey supplies a complete listing of data sources used in the analysis in the Integrated Report.

New Jersey has listed waterbodies on the 2002 Section 303(d) list based on (1) observed or expected violations of numeric and narrative water quality criteria and (2) where designated uses are determined to be impaired but do not necessarily have numeric criteria violations on record. Sublist 5 fulfills the requirement for identification and priority setting for water quality-limited segments still requiring TMDLs and, as noted above, constitutes New Jersey's Section 303(d) list. As per 40 CFR 130.7(b)(5), New Jersey has assembled and evaluated all existing and readily available water quality-related data and information to develop the 2002 Section 303(d) list. New Jersey's methodology for evaluation of such data and an assessment of the implementation of applicable water quality standards established under Section 303 of the Act, including waterbody uses, numeric criteria, narrative criteria, and antidegradation requirements, where applicable, is included in the Integrated Report. The Integrated Report also includes a discussion of how New Jersey considered the frequency and duration of exceedances of the applicable water quality standards and is consistent with EPA's guidance mentioned above.

New Jersey evaluated monitoring data for radioactivity in the preparation of the integrated list. New Jersey's review of surface water samples for radioactive compounds collected from 1996 to 2000 pursuant to the requirements of the Safe Drinking Water Act did not reveal any radioactivity at levels of concern. New Jersey did not include a description of its methodology for assessing radioactivity in surface waters and the results of its assessment in the 2002 Integrated Report but did provide this information, to EPA, under cover of a letter dated December 20, 2002 transmitting its 2002 Integrated Report. New Jersey has assured EPA that its 2004 Integrated Report will include a narrative description of its assessment of radioactivity in surface waters.

New Jersey provided its rationale for not relying on particular existing and readily available water quality-related data and information as a basis for listing waters. New Jersey solicited local water quality data and information through a notice published in the May 21, 2001 New Jersey Register, in the New Jersey bulletin, and on the New Jersey website. In this notice, New Jersey requested that only data which meets the following requirements be furnished (1) in electronic format, (2) collected using New Jersey's quality assurance guidelines, (3) with spatial references accurate to within 200 feet, and (4) accompanied by a citeable, hard-copy report with contact information.

New Jersey identified the data received from outside sources and the rationale as to why certain data were not used. One set of data for dissolved oxygen for the lower Passaic River was

not used because it did not incorporate a quality assurance plan. Data were also received regarding the number of newborn oysters in the Delaware Bay; this data could not be used because there is no protocol for interpreting such data. Finally, certain Wanaque River data were received too late for inclusion in this list and will be considered in development of the 2004 list.

New Jersey also chose not to use EPA Superfund and RCRA data since these data are contained in voluminous paper files requiring a manual search of all files in order to find the subset of sites which have the potential to impact surface water and, once found, a particular site's data may not immediately reveal if water contamination is occurring and additional scientific analysis would need to be done. In addition, often the specific geo-referencing for sampling site is not known. New Jersey is currently creating a searchable, electronic database of all Superfund and RCRA data called "EQUIS" which will be useful in the future for evaluation of waters under Section 303(d).

EPA has reviewed, pursuant to Section 303(d), New Jersey's description of the data and information considered and the methodology employed for identifying and for categorizing waters included on the Section 303(d) list of its 2002 Integrated Report. EPA concludes that New Jersey properly assembled and evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 CFR 130.7(b)(5).

Delisting

New Jersey has listed waterbodies on Sublist 5 based on (1) observed or expected violations of numeric and narrative water quality criteria and (2) where designated uses are determined to be impaired but do not necessarily have numeric criteria violations on record. In addition to assessing chemical and physical monitoring results, a benthic macroinvertebrate assessment protocol is used to assess attainment of the narrative criterion of "no toxics in toxic amounts" and to assess the "aquatic life" designated use; this protocol identifies a site as impaired if the variety of taxa at the site is low. After collection and evaluation of all of the above data and information, New Jersey only delisted a specific waterbody/pollutant combination that was listed on its 1998 Section 303(d) list, if the data indicate (1) there were no observed or expected violations of numeric or narrative water quality criteria and (2) there were no impairments to its designated use.¹

¹In certain cases, the name of a 1998-listed waterbody has been changed for the 2002 list. These name changes occur on a one-to-one basis such as where "Manasquan River" has been renamed "Manasquan River at Squankum" but also occur in certain cases where one large waterbody is now subdivided into several smaller waterbodies. For example, the 1998 list's "Mullica River Estuary" is eliminated and instead is represented by three component waterbodies for the 2002 list: "Mullica River Lower Estuary," "Mullica River Upper Estuary," and "Mullica River Middle Estuary." In 1998, fecal coliform was an impairment at "Mullica River Estuary" and, in 2002, fecal coliform is an impairment at only two of the three component waterbodies. The third component waterbody is unimpaired for fecal coliform and, therefore, represents one delisting.

New Jersey compiled and processed an extensive amount of data in order to reassess non-tidal, tidal, and coastal waters for a range of parameters. Based upon newly collected data and revised assessment techniques, New Jersey is delisting a total of 756 individual waterbody/pollutant combinations which had been included on New Jersey's 1998 Section 303(d) list². All of these delistings are adequately justified by New Jersey, as described below.

Of the total 762 delistings, 428 waterbody/pollutant combinations are delisted for chemical and physical parameters, as follows. Two hundred and fifty-one (251) waterbody segments are delisted for conventional pollutants (nutrients, fecal coliform, pH, dissolved oxygen, etc.) and metals based on more recent or more accurate data which demonstrate that the designated use or surface water quality standard ("SWQS") criterion is being met. Sixty-four (64) waterbody/pollutant combinations are delisted because the criterion cannot be measured as it falls below the detection limit of the analytical method utilized. Fifty-three (53) lakes are delisted based on re-evaluation of existing data. These lakes had been listed in 1998 based on data that exceeded the EPA's Clean Lakes Program guidance number of phosphorus at or greater than 0.02 ppm as indicative of eutrophic status. These lakes are now delisted and identified as needing additional data since it cannot be shown that these lakes exceed the actual New Jersey SWQS of 0.05 ppm phosphorus. New Jersey has determined the designated uses are met.

Forty (40) waterbody segments previously listed for beryllium, aluminum, and/or iron are delisted because there are no numeric SWQS for these metals, the previous beryllium listings were based on a proposed yet never adopted New Jersey beryllium standard, and New Jersey determined that these metals do not cause an impairment to the designated use of the waters being delisted. A TMDL has been completed and approved by EPA for 10 waterbody/pollutant combinations. Ten (10) listings were made in error in 1998: 4 should not have been listed and 6 were listed twice.

Of the total 762 delistings, the remaining 334 waterbody/pollutant combinations are all non-tidal waters delisted for the "aquatic life" designated use and the "no toxics in toxic amounts" narrative criterion based on the benthic macroinvertebrate assessment protocol for non-tidal waters, as follows. Sixty-nine (69) waterbody segments are delisted based on collection of new data for the 2002 reporting cycle, which indicate that numeric water quality standards and designated uses are now being met.

Two hundred and thirty-five (235) waterbody segments are delisted because it was determined that these locations have unique characteristics which require reference conditions different from the ones that were used in the original assessment. Therefore, these sites were assigned incorrect assessments for the 1998 list and must now be reassessed using reference conditions appropriate for these locations. Twenty-six (26) waterbody segments are determined to be tidally-influenced and therefore, erroneously included in 1998 in this non-tidal assessment protocol. Four (4) previously listed sites cannot be found, by New Jersey, in its database and New Jersey believes that these sites were listed incorrectly because of transcription errors.

²New Jersey's 2002 Integrated Report identifies how each 1998 waterbody/pollutant combination appears on the 2002 list using the new naming scheme and the number of delistings counted here is based on this new naming scheme.

EPA has reviewed the basis for delisting these waterbody/pollutant combinations and has determined that the delistings are appropriate.

Priority Ranking

EPA regulations codify the requirement in Section 303(d)(1)(A) of the Act that States establish a priority ranking for listed waters. The regulations at 40 CFR 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those segments targeted for TMDL development in the next two years. In prioritizing and targeting waters, Section 303(d)(1)(A) of the Act mandates that States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and State or national policies and priorities. 57 FR 33040, 33045 (July 24, 1992), and EPA's 1991 Guidance.

New Jersey has identified 102 waterbody/pollutant combinations for which TMDLs will be completed over the next two years. These 102 waters are grouped by impairment as follows: 69 for fecal coliform, 28 for total phosphorus for rivers, 2 for dissolved oxygen, 1 for pH, 1 for nitrate, and 1 for temperature.

EPA has reviewed New Jersey's priority ranking of listed waters for TMDL development, and concludes that New Jersey properly took into account the severity of pollution and the uses to be made of such waters. New Jersey ranked watersheds as high, medium and low priority by taking into account the nature of the pollutant of concern. Pollutants directly related to human health issues were ranked "high," while the conventional water quality parameters ranked "medium," and aquatic life considerations ranked "low." New Jersey believes that pollutants which affect human health are of a higher priority than those which may alter aquatic life in perhaps unknown ways. When scheduling the waterbody/pollutant combinations for TMDL development, New Jersey additionally considers administrative concerns such as availability of staff resources, coordination with other programs, interstate efforts, TMDL complexity, TMDL model development needs, and timing with other related TMDLs under development.

New Jersey is targeting a variety of waters providing wide geographic coverage statewide for fecal coliform and phosphorus impairments, predominantly, for the development of TMDLs over the next two years. EPA supports New Jersey's targeting of these high priority waters.

Public Participation

New Jersey announced the availability of the 2002 Section 303(d) list in the New Jersey Register on May 20, 2002, providing a public comment period through July 8, 2002. Based on additional information provided to New Jersey, an amended Section 303(d) list was public noticed on August 5, 2002 which provided a public comment period through September 4, 2002.

New Jersey received over 200 written comments from more than 30 interested parties and has submitted copies of these comments and its responses with the Integrated Report.